Surface Science 299/300 (1994) 1040–1042
North-Holland

surface science

Author index

Allan, G., Tight-binding methods as applied to transition metal surfaces 299/300 (1994) 319
Arthur, J.R., Molecular beam epitaxy of compound semiconductors 299/300 (1994) 818

Bauer, E., Surface electron microscopy: the first thirty years 299/300 (1994) 102
Benedek, G. and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
Benninghoven, A., Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246
Bradshaw, A.M., Interaction of photons with surfaces 299/300 (1994) 49
Brillson, L.J., Metal–semiconductor interfaces 299/300 (1994) 909

Capasso, F. and A.Y. Cho, Bandgap engineering of semiconductor heterostructures by molecular beam epitaxy: physics and applications 299/300 (1994) 878
Cardillo, M.J., Molecular beam scattering from solid surfaces: He diffraction, hyperthermal scattering, and surface dynamics 299/300 (1994) 277
Cavanagh, R.R., E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643
Chadi, D.J., Energy-minimization approach to the atomic geometry of semiconductor surfaces 299/300 (1994) 311
Chiarotti, G., Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
Cho, A.Y., see Capasso 299/300 (1994) 878
Citrin, P.H., X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199
Comsa, G., Surface scattering of thermal energy He beams: from the proof of the wave nature of atoms to a versatile and efficient surface probe 299/300 (1994) 77
Conrad, E.H. and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391

Dash, J.G., M. Schick and O.E. Vilches, Phases of helium monolayers: search and discovery 299/300 (1994) 405
Dobrzynski, L., Response theory of interfaces, superlattices and composite materials 299/300 (1994) 1008
Duke, C.B., Interaction of electrons and positrons with solids: from bulk to surface in thirty years 299/300 (1994) 24
Duval, X., see Thomy 299/300 (1994) 415

Ehrlich, G., Diffusion of individual adatoms 299/300 (1994) 628
Ekerdt, J.G., see Heitzinger 299/300 (1994) 892
Engel, T., see Conrad 299/300 (1994) 391
Ertl, G., Reactions at well-defined surfaces 299/300 (1994) 742
Estrup, P.J., Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722

Feenstra, R.M., Scanning tunneling spectroscopy 299/300 (1994) 965
Feibelman, P.J., Making sense of surface structure 299/300 (1994) 426

Elsevier Science B.V.

Surface Science 299/300 (1994) 1040–1042
North-Holland

surface science

Author index

Allan, G., Tight-binding methods as applied to transition metal surfaces 299/300 (1994) 319
Arthur, J.R., Molecular beam epitaxy of compound semiconductors 299/300 (1994) 818

Bauer, E., Surface electron microscopy: the first thirty years 299/300 (1994) 102
Benedek, G. and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
Benninghoven, A., Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246
Bradshaw, A.M., Interaction of photons with surfaces 299/300 (1994) 49
Brillson, L.J., Metal–semiconductor interfaces 299/300 (1994) 909

Capasso, F. and A.Y. Cho, Bandgap engineering of semiconductor heterostructures by molecular beam epitaxy: physics and applications 299/300 (1994) 878
Cardillo, M.J., Molecular beam scattering from solid surfaces: He diffraction, hyperthermal scattering, and surface dynamics 299/300 (1994) 277
Cavanagh, R.R., E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643
Chadi, D.J., Energy-minimization approach to the atomic geometry of semiconductor surfaces 299/300 (1994) 311
Chiarotti, G., Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
Cho, A.Y., see Capasso 299/300 (1994) 878
Citrin, P.H., X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199
Comsa, G., Surface scattering of thermal energy He beams: from the proof of the wave nature of atoms to a versatile and efficient surface probe 299/300 (1994) 77
Conrad, E.H. and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391

Dash, J.G., M. Schick and O.E. Vilches, Phases of helium monolayers: search and discovery 299/300 (1994) 405
Dobrzynski, L., Response theory of interfaces, superlattices and composite materials 299/300 (1994) 1008
Duke, C.B., Interaction of electrons and positrons with solids: from bulk to surface in thirty years 299/300 (1994) 24
Duval, X., see Thomy 299/300 (1994) 415

Ehrlich, G., Diffusion of individual adatoms 299/300 (1994) 628
Ekerdt, J.G., see Heitzinger 299/300 (1994) 892
Engel, T., see Conrad 299/300 (1994) 391
Ertl, G., Reactions at well-defined surfaces 299/300 (1994) 742
Estrup, P.J., Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722

Feenstra, R.M., Scanning tunneling spectroscopy 299/300 (1994) 965
Feibelman, P.J., Making sense of surface structure 299/300 (1994) 426

Elsevier Science B.V.

Feldman, L.C., High energy ion scattering 299/300 (1994) 233
Furtak, T.E., Electrochemical surface science 299/300 (1994) 945

García-Moliner, F. and V.R. Velasco, Surface Green function matching 299/300 (1994) 332
Gatos, H.C., Semiconductor electronics and the birth of the modern science of surfaces 299/300 (1994) 1
Gomer, R., Field emission, field ionization, and field desorption 299/300 (1994) 129
Goodman, D.W., Catalysis: from single crystals to the "real world" 299/300 (1994) 837
Grazhulis, V.A., On low temperature studies of semiconductor surfaces 299/300 (1994) 1022

Harrison, W.A., Tight-binding methods 299/300 (1994) 298
Heilweil, E.J., see Cavanagh 299/300 (1994) 643
Heinz, K., Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433
Heitzinger, J.M., J.M. White and J.G. Ekerdt, Mechanisms of GaAs atomic layer epitaxy: a review of progress 299/300 (1994) 892
Himpsel, F.J., Electronic structure of semiconductor surfaces and interfaces 299/300 (1994) 525
Ho, W., Surface photochemistry 299/300 (1994) 996
Holloway, S., Dynamics of gas–surface reactions 299/300 (1994) 656

Ibach, H., Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116

Kahn, A., Thirty years of atomic and electronic structure determination of surfaces of tetrahedrally coordinated compound semiconductors 299/300 (1994) 469
Kang, H.C. and W.H. Weinberg, Kinetic modeling of surface rate processes 299/300 (1994) 755
Kawaji, S., Quantum transport in semiconductor surface and interface channels 299/300 (1994) 563
King, D.A., Chemisorption on metals: a personal review 299/300 (1994) 678

Lagowski, J., Semiconductor surface spectroscopies: the early years 299/300 (1994) 92
Lang, N.D., Density-functional studies of metal surfaces and metal–adsorbate systems 299/300 (1994) 284
Louie, S.G., Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
Lüth, H., Chemical beam epitaxy – a child of surface science 299/300 (1994) 867

Madey, T.E., History of desorption induced by electronic transitions 299/300 (1994) 824
Madix, R.J., Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
Marcus, P.M., LEED and clean metal surfaces: personal reminiscences and opinions 299/300 (1994) 447
Menzel, D., The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
Mönch, W., Metal–semiconductor contacts: electronic properties 299/300 (1994) 928

Naumovets, A.G., Adsorption on metals: a look from the not-too-far East 299/300 (1994) 706
Nørskov, J.K., Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690

Pendry, J.B., Multiple scattering theory of electron diffraction 299/300 (1994) 375
Powell, C.J., Inelastic interactions of electrons with surfaces: application to Auger-electron spectroscopy and X-ray photoelectron spectroscopy 299/300 (1994) 34

Quate, C.F., The AFM as a tool for surface imaging 299/300 (1994) 980

Rabalais, J.W., Low energy ion scattering and recoiling 299/300 (1994) 219
Rendulic, K.D. and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
Roberts, M.W., Chemisorption and reactions at metal surfaces 299/300 (1994) 769
Rohrer, H., Scanning tunneling microscopy: a surface science tool and beyond 299/300 (1994) 956

Schick, M., see Dash 299/300 (1994) 405
Shen, Y.R., Surfaces probed by nonlinear optics 299/300 (1994) 551
Somorjai, G.A., see Van Hove 299/300 (1994) 487
Somorjai, G.A., The surface science of heterogeneous catalysis 299/300 (1994) 849
Stephenson, J.C., see Cavanagh 299/300 (1994) 643

Taglauer, E., Probing surfaces with ions 299/300 (1994) 64
Thomy, A. and X. Duval, Stepwise isotherms and phase transitions in physisorbed films 299/300 (1994) 415
Toennies, J.P., see Benedek 299/300 (1994) 587
Tong, S.Y., Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
Tsong, T.T., Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153
Tully, J.C., The dynamics of adsorption and desorption 299/300 (1994) 667

Van Hove, M.A. and G.A. Somorjai, Adsorption and adsorbate-induced restructuring: a LEED perspective 299/300 (1994) 487
Velasco, V.R., see García-Moliner 299/300 (1994) 332
Venables, J.A., Atomic processes in crystal growth 299/300 (1994) 798
Vilches, O.E., see Dash 299/300 (1994) 405

Wallis, R.F., Surface phonons: theoretical developments 299/300 (1994) 612
Webb, M.B., Strain effects on Si(001) 299/300 (1994) 454
Weinberg, W.H., see Kang 299/300 (1994) 755
White, J.M., see Heitzinger 299/300 (1994) 892
Williams, E.D., Surface steps and surface morphology: understanding macroscopic phenomena from atomic observations 299/300 (1994) 502
Winkler, A., see Rendulic 299/300 (1994) 261
Woodruff, D.P., Photoelectron and Auger electron diffraction 299/300 (1994) 183

Xie Xide, The development of surface science in China: retrospect and prospects 299/300 (1994) 1031

Yates, Jr., J.T., Chemisorption on surfaces – an historical look at a representative adsorbate: carbon monoxide 299/300 (1994) 731

Surface Science 299/300 (1994) 1043–1054
North-Holland

surface science

Subject index

Alkali halides
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
W. Ho, Surface photochemistry 299/300 (1994) 996

Alkali metals
N.D. Lang, Density-functional studies of metal surfaces and metal–adsorbate systems 299/300 (1994) 284
A.G. Naumovets, Adsorption on metals: a look from the not-too-far East 299/300 (1994) 706

Alloys
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
T.T. Tsong, Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153

Aluminium
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690

Ammonia
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Atomic and molecular beam studies
G. Comsa, Surface scattering of thermal energy He beams: from the proof of the wave nature of atoms to a versatile and efficient surface probe 299/300 (1994) 77
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
M.J. Cardillo, Molecular beam scattering from solid surfaces: He diffraction, hyperthermal scattering, and surface dynamics 299/300 (1994) 277
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
S. Holloway, Dynamics of gas–surface reactions 299/300 (1994) 656
J.C. Tully, The dynamics of adsorption and desorption 299/300 (1994) 667
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785

Atomic force microscopy
C.F. Quate, The AFM as a tool for surface imaging 299/300 (1994) 980

Band structure
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346

Elsevier Science B.V.

A. Kahn, Thirty years of atomic and electronic structure determination of surfaces of tetrahedrally coordinated compound semiconductors 299/300 (1994) 469
F.J. Himpsel, Electronic structure of semiconductor surfaces and interfaces 299/300 (1994) 525
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
R.F. Wallis, Surface phonons: theoretical developments 299/300 (1994) 612

Cadmium selenide
A. Kahn, Thirty years of atomic and electronic structure determination of surfaces of tetrahedrally coordinated compound semiconductors 299/300 (1994) 469

Cadmium sulphide
H.C. Gatos, Semiconductor electronics and the birth of the modern science of surfaces 299/300 (1994) 1
J. Lagowski, Semiconductor surface spectroscopies: the early years 299/300 (1994) 92

Carbon dioxide
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785

Carbon monoxide
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
D. Menzel, The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
R.R. Cavanagh, E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643
D.A. King, Chemisorption on metals: a personal review 299/300 (1994) 678
J.T. Yates, Jr., Chemisorption on surfaces – an historical look at a representative adsorbate: carbon monoxide 299/300 (1994) 731
G. Ertl, Reactions at well-defined surfaces 299/300 (1994) 742
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
T.E. Madey, History of desorption induced by electronic transitions 299/300 (1994) 824
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849
W. Ho, Surface photochemistry 299/300 (1994) 996

Catalysis
D.W. Goodman, Catalysis: from single crystals to the "real world" 299/300 (1994) 837
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Chemical vapour deposition
H. Lüth, Chemical beam epitaxy – a child of surface science 299/300 (1994) 867

Chemisorption theory
N.D. Lang, Density-functional studies of metal surfaces and metal–adsorbate systems 299/300 (1994) 284
S. Holloway, Dynamics of gas–surface reactions 299/300 (1994) 656
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690

Conductivity
S. Kawaji, Quantum transport in semiconductor surface and interface channels 299/300 (1994) 563
R.M. Feenstra, Scanning tunneling spectroscopy 299/300 (1994) 965

Copper
D.P. Woodruff, Photoelectron and Auger electron diffraction 299/300 (1994) 183
P.H. Citrin, X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
J.B. Pendry, Multiple scattering theory of electron diffraction 299/300 (1994) 375
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690
W. Ho, Surface photochemistry 299/300 (1994) 996

Deuterium
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261

Electron diffraction, see also Low energy electron diffraction
D.P. Woodruff, Photoelectron and Auger electron diffraction 299/300 (1994) 183
J.B. Pendry, Multiple scattering theory of electron diffraction 299/300 (1994) 375

Electron energy loss spectroscopy
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116

Electron microscopy
E. Bauer, Surface electron microscopy: the first thirty years 299/300 (1994) 102
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798

Electron scattering
C.J. Powell, Inelastic interactions of electrons with surfaces: application to Auger-electron spectroscopy and X-ray photoelectron spectroscopy 299/300 (1994) 34
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358

Electron stimulated desorption
J.T. Yates, Jr., Chemisorption on surfaces – an historical look at a representative adsorbate: carbon monoxide 299/300 (1994) 731
T.E. Madey, History of desorption induced by electronic transitions 299/300 (1994) 824

Faceting
E.H. Conrad and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391

Field desorption
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129

Field emission, see also Field ion microscopy
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129

Field ion microscopy, see also Field emission
T.T. Tsong, Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Field ionisation, see also Field emission, Field ion microscopy
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129

Gallium arsenide
H.C. Gatos, Semiconductor electronics and the birth of the modern science of surfaces 299/300 (1994) 1
D.J. Chadi, Energy-minimization approach to the atomic geometry of semiconductor surfaces 299/300 (1994) 311
A. Kahn, Thirty years of atomic and electronic structure determination of surfaces of tetrahedrally coordinated compound semiconductors 299/300 (1994) 469
H. Lüth, Chemical beam epitaxy – a child of surface science 299/300 (1994) 867
J.M. Heitzinger, J.M. White and J.G. Ekerdt, Mechanisms of GaAs atomic layer epitaxy: a review of progress 299/300 (1994) 892
W. Mönch, Metal–semiconductor contacts: electronic properties 299/300 (1994) 928

Germanium
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
G. Chiarotti, Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798

Gold
L.C. Feldman, High energy ion scattering 299/300 (1994) 233
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Halides
R.R. Cavanagh, E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643

Hall effect
S. Kawaji, Quantum transport in semiconductor surface and interface channels 299/300 (1994) 563
H. Lüth, Chemical beam epitaxy – a child of surface science 299/300 (1994) 867

Halogens
P.H. Citrin, X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785

Heterostructures
H. Lüth, Chemical beam epitaxy – a child of surface science 299/300 (1994) 867
F. Capasso and A.Y. Cho, Bandgap engineering of semiconductor heterostructures by molecular beam epitaxy: physics and applications 299/300 (1994) 878

Hydrogen
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690
P.J. Estrup, Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722
W. Ho, Surface photochemistry 299/300 (1994) 996

Infrared spectroscopy
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
D.A. King, Chemisorption on metals: a personal review 299/300 (1994) 678

Ion scattering
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
J.W. Rabalais, Low energy ion scattering and recoiling 299/300 (1994) 219
L.C. Feldman, High energy ion scattering 299/300 (1994) 233

Iridium
T.T. Tsong, Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153
K. Heinz, Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433

Iron
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Lead
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64

Low energy electron diffraction
C.B. Duke, Interaction of electrons and positrons with solids: from bulk to surface in thirty years 299/300 (1994) 24
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
K. Heinz, Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433
P.M. Marcus, LEED and clean metal surfaces: personal reminiscences and opinions 299/300 (1994) 447
M.A. Van Hove and G.A. Somorjai, Adsorption and adsorbate-induced restructuring: a LEED perspective 299/300 (1994) 487

Magnesium
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690

Magnesium oxide
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798

Magnetic measurements
S. Kawaji, Quantum transport in semiconductor surface and interface channels 299/300 (1994) 563

Magnetic structures
G. Allan, Tight-binding methods as applied to transition metal surfaces 299/300 (1994) 319

Mercury
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769

Metals
W.A. Harrison, Tight-binding methods 299/300 (1994) 298

Molecular beam epitaxy
J.R. Arthur, Molecular beam epitaxy of compound semiconductors 299/300 (1994) 818
F. Capasso and A.Y. Cho, Bandgap engineering of semiconductor heterostructures by molecular beam epitaxy: physics and applications 299/300 (1994) 878
J.M. Heitzinger, J.M. White and J.G. Ekerdt, Mechanisms of GaAs atomic layer epitaxy: a review of progress 299/300 (1994) 892

Molybdenum
P.J. Estrup, Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Nickel
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116
D.P. Woodruff, Photoelectron and Auger electron diffraction 299/300 (1994) 183
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
K. Heinz, Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433
D.A. King, Chemisorption on metals: a personal review 299/300 (1994) 678
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785

Nitric oxide
W. Ho, Surface photochemistry 299/300 (1994) 996

Nitrogen
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
H. C. Kang and W.H. Weinberg, Kinetic modeling of surface rate processes 299/300 (1994) 755

Noble gases
J.G. Dash, M. Schick and O.E. Vilches, Phases of helium monolayers: search and discovery 299/300 (1994) 405

Nucleation
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798

Organic substances
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116
A. Benninghoven, Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
D.A. King, Chemisorption on metals: a personal review 299/300 (1994) 678
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Oxygen
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129
D. Menzel, The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
D.P. Woodruff, Photoelectron and Auger electron diffraction 299/300 (1994) 183
A.G. Naumovets, Adsorption on metals: a look from the not-too-far East 299/300 (1994) 706
G. Ertl, Reactions at well-defined surfaces 299/300 (1994) 742
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769
T.E. Madey, History of desorption induced by electronic transitions 299/300 (1994) 824

Palladium
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
G. Ertl, Reactions at well-defined surfaces 299/300 (1994) 742
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798

Photoconductivity
H.C. Gatos, Semiconductor electronics and the birth of the modern science of surfaces 299/300 (1994) 1

Photodesorption
W. Ho, Surface photochemistry 299/300 (1994) 996

Photoelectron spectroscopy
D. Menzel, The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
G. Allan, Tight-binding methods as applied to transition metal surfaces 299/300 (1994) 319
J.T. Yates, Jr., Chemisorption on surfaces – an historical look at a representative adsorbate: carbon monoxide 299/300 (1994) 731
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769

Physisorption
A. Thomy and X. Duval, Stepwise isotherms and phase transitions in physisorbed films 299/300 (1994) 415

Platinum
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116
J.W. Rabalais, Low energy ion scattering and recoiling 299/300 (1994) 219
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587

R.R. Cavanagh, E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643
G. Ertl, Reactions at well-defined surfaces 299/300 (1994) 742
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Polymers
A. Benninghoven, Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246

Positron spectroscopy
C.B. Duke, Interaction of electrons and positrons with solids: from bulk to surface in thirty years 299/300 (1994) 24

Raman scattering
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Reflection spectroscopy
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
G. Chiarotti, Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Rhenium
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Rhodium
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849

Ruthenium
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64
D. Menzel, The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
H. C. Kang and W.H. Weinberg, Kinetic modeling of surface rate processes 299/300 (1994) 755

Schottky barrier
W. Mönch, Metal–semiconductor contacts: electronic properties 299/300 (1994) 928

Second harmonic generation
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Secondary ion mass spectroscopy
A. Benninghoven, Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246

Selenium
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358

Semiconductors
W.A. Harrison, Tight-binding methods 299/300 (1994) 298
F.J. Himpsel, Electronic structure of semiconductor surfaces and interfaces 299/300 (1994) 525
L.J. Brillson, Metal–semiconductor interfaces 299/300 (1994) 909
V.A. Grazhulis, On low temperature studies of semiconductor surfaces 299/300 (1994) 1022
Xie Xide, The development of surface science in China: retrospect and prospects 299/300 (1994) 1031

Silicides
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116

Silicon
A.M. Bradshaw, Interaction of photons with surfaces 299/300 (1994) 49
J.W. Rabalais, Low energy ion scattering and recoiling 299/300 (1994) 219
L.C. Feldman, High energy ion scattering 299/300 (1994) 233
A. Benninghoven, Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246
N.D. Lang, Density-functional studies of metal surfaces and metal–adsorbate systems 299/300 (1994) 284
D.J. Chadi, Energy-minimization approach to the atomic geometry of semiconductor surfaces 299/300 (1994) 311
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
E.H. Conrad and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391
M.B. Webb, Strain effects on Si(001) 299/300 (1994) 454
G. Chiarotti, Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
S. Kawaji, Quantum transport in semiconductor surface and interface channels 299/300 (1994) 563
R.R. Cavanagh, E.J. Heilweil and J.C. Stephenson, Time-resolved measurements of energy transfer at surfaces 299/300 (1994) 643
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798
R.M. Feenstra, Scanning tunneling spectroscopy 299/300 (1994) 965
C.F. Quate, The AFM as a tool for surface imaging 299/300 (1994) 980
W. Ho, Surface photochemistry 299/300 (1994) 996

Silver
L.C. Feldman, High energy ion scattering 299/300 (1994) 233
A. Benninghoven, Surface analysis by secondary ion mass spectrometry (SIMS) 299/300 (1994) 246
E.H. Conrad and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
J.A. Venables, Atomic processes in crystal growth 299/300 (1994) 798
W. Ho, Surface photochemistry 299/300 (1994) 996

Solid–electrolyte interface
Y.R. Shen, Surfaces probed by nonlinear optics 299/300 (1994) 551
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945

Sputtering
E. Taglauer, Probing surfaces with ions 299/300 (1994) 64

Superconductivity
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116

Superlattices
L. Dobrzynski, Response theory of interfaces, superlattices and composite materials 299/300 (1994) 1008
Xie Xide, The development of surface science in China: retrospect and prospects 299/300 (1994) 1031

Surface defects
M.B. Webb, Strain effects on Si(001) 299/300 (1994) 454
E.D. Williams, Surface steps and surface morphology: understanding macroscopic phenomena from atomic observations 299/300 (1994) 502

Surface diffusion
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129
T.T. Tsong, Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153
P.J. Feibelman, Making sense of surface structure 299/300 (1994) 426
G. Ehrlich, Diffusion of individual adatoms 299/300 (1994) 628

Surface phonons and adsorbate vibrations
F. García-Moliner and V.R. Velasco, Surface Green function matching 299/300 (1994) 332
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
R.F. Wallis, Surface phonons: theoretical developments 299/300 (1994) 612
L. Dobrzynski, Response theory of interfaces, superlattices and composite materials 299/300 (1994) 1008

Surface photovoltage
H.C. Gatos, Semiconductor electronics and the birth of the modern science of surfaces 299/300 (1994) 1
J. Lagowski, Semiconductor surface spectroscopies: the early years 299/300 (1994) 92
L.J. Brillson, Metal–semiconductor interfaces 299/300 (1994) 909

Surface plasmons
F. García-Moliner and V.R. Velasco, Surface Green function matching 299/300 (1994) 332
L. Dobrzynski, Response theory of interfaces, superlattices and composite materials 299/300 (1994) 1008

Surface states and interface states
S.G. Louie, Quasiparticle theory of surface electronic excitation energies 299/300 (1994) 346
F.J. Himpsel, Electronic structure of semiconductor surfaces and interfaces 299/300 (1994) 525
G. Chiarotti, Electronic surface states investigated by optical spectroscopy 299/300 (1994) 541
L.J. Brillson, Metal–semiconductor interfaces 299/300 (1994) 909

Surface stress
F. García-Moliner and V.R. Velasco, Surface Green function matching 299/300 (1994) 332
M.B. Webb, Strain effects on Si(001) 299/300 (1994) 454
E.D. Williams, Surface steps and surface morphology: understanding macroscopic phenomena from atomic observations 299/300 (1994) 502

Surface structure, see also Low energy electron diffraction
D.P. Woodruff, Photoelectron and Auger electron diffraction 299/300 (1994) 183
P.H. Citrin, X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199

L.C. Feldman, High energy ion scattering 299/300 (1994) 233
W.A. Harrison, Tight-binding methods 299/300 (1994) 298
D.J. Chadi, Energy-minimization approach to the atomic geometry of semiconductor surfaces 299/300 (1994) 311
S.Y. Tong, Electron-diffraction for surface studies – the first 30 years 299/300 (1994) 358
P.J. Feibelman, Making sense of surface structure 299/300 (1994) 426
K. Heinz, Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433
A. Kahn, Thirty years of atomic and electronic structure determination of surfaces of tetrahedrally coordinated compound semiconductors 299/300 (1994) 469
M.A. Van Hove and G.A. Somorjai, Adsorption and adsorbate-induced restructuring: a LEED perspective 299/300 (1994) 487
J.K. Nørskov, Theory of adsorption and adsorbate-induced reconstruction 299/300 (1994) 690

Surface tension
G. Allan, Tight-binding methods as applied to transition metal surfaces 299/300 (1994) 319

Surface thermodynamics
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
E.H. Conrad and T. Engel, The equilibrium crystal shape and the roughening transition on metal surfaces 299/300 (1994) 391
J.G. Dash, M. Schick and O.E. Vilches, Phases of helium monolayers: search and discovery 299/300 (1994) 405
A. Thomy and X. Duval, Stepwise isotherms and phase transitions in physisorbed films 299/300 (1994) 415
J.C. Tully, The dynamics of adsorption and desorption 299/300 (1994) 667

Thermal desorption
P.J. Estrup, Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722
H. C. Kang and W.H. Weinberg, Kinetic modeling of surface rate processes 299/300 (1994) 755
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
J.M. Heitzinger, J.M. White and J.G. Ekerdt, Mechanisms of GaAs atomic layer epitaxy: a review of progress 299/300 (1994) 892

Tungsten
R. Gomer, Field emission, field ionization, and field desorption 299/300 (1994) 129
T.T. Tsong, Atom-probe field ion microscopy and applications to surface science 299/300 (1994) 153
D. Menzel, The development of core electron spectroscopies of adsorbates 299/300 (1994) 170
L.C. Feldman, High energy ion scattering 299/300 (1994) 233
K.D. Rendulic and A. Winkler, Adsorption and desorption dynamics as seen through molecular beam techniques 299/300 (1994) 261
K. Heinz, Geometrical and chemical restructuring of clean metal surfaces as retrieved by LEED 299/300 (1994) 433
G. Benedek and J.P. Toennies, Helium atom scattering spectroscopy of surface phonons: genesis and achievements 299/300 (1994) 587
D.A. King, Chemisorption on metals: a personal review 299/300 (1994) 678
A.G. Naumovets, Adsorption on metals: a look from the not-too-far East 299/300 (1994) 706

P.J. Estrup, Surface phases of reconstructed tungsten (100) and molybdenum (100) 299/300 (1994) 722
J.T. Yates, Jr., Chemisorption on surfaces – an historical look at a representative adsorbate: carbon monoxide 299/300 (1994) 731
R.J. Madix, Through the labyrinth of surface reaction mechanism: a personal account, 1964–1992 299/300 (1994) 785
T.E. Madey, History of desorption induced by electronic transitions 299/300 (1994) 824

Tunneling
G. Ertl, Reactions at well-defined surfaces 299/300 (1994) 742
G.A. Somorjai, The surface science of heterogeneous catalysis 299/300 (1994) 849
T.E. Furtak, Electrochemical surface science 299/300 (1994) 945
H. Rohrer, Scanning tunneling microscopy: a surface science tool and beyond 299/300 (1994) 956
R.M. Feenstra, Scanning tunneling spectroscopy 299/300 (1994) 965

Water
M.W. Roberts, Chemisorption and reactions at metal surfaces 299/300 (1994) 769

Work function
N.D. Lang, Density-functional studies of metal surfaces and metal–adsorbate systems 299/300 (1994) 284
W.A. Harrison, Tight-binding methods 299/300 (1994) 298
A.G. Naumovets, Adsorption on metals: a look from the not-too-far East 299/300 (1994) 706

X-ray absorption
P.H. Citrin, X-ray absorption spectroscopy applied to surface structure: SEXAFS and NEXAFS 299/300 (1994) 199
J.B. Pendry, Multiple scattering theory of electron diffraction 299/300 (1994) 375

Zinc oxide
H. Ibach, Electron energy loss spectroscopy: the vibration spectroscopy of surfaces 299/300 (1994) 116